

Manpower for American Pharmacy

ROBERT P. FISCHELIS, Pharm.D., Sc.D.

PUBLICATION of the "Health Manpower Source Book 15, Pharmacists" (1), presenting basic data on the number, location, and characteristics of pharmacists in the United States, is timely for the following reasons, among others.

1. More accurate determination and wider distribution of the statistical data presented in this publication have been long overdue.

2. Demonstration that feasible continuous ways and means for assembling and keeping current such information about the pharmaceutical profession exist was necessary in order to further a logical determination of the supply of and demand for pharmacists.

3. The distribution of prescription drugs and medicines which are purchased directly by the public, with or without professional supervision, is presently being subjected to close scrutiny. The information which has become available through the Health Manpower Source Book will assist in making sound judgments with regard to problems in this area.

4. Considerable attention is being given at this time to the broadening of basic education and professional training of pharmacists so that they may be able to absorb new functions in the expanding system of supplying medical care.

5. An analysis of the current and potential manpower of the profession and of factors concerned with the adaptability of pharmacists to services not usually associated in the public mind with the more restricted activities which pharmacists are licensed to perform is particularly helpful at this time.

6. The opportunity for critical scrutiny of the information made available in the Health

Manpower Source Book will stimulate the profession to provide more adequate recordkeeping and to extend the study of professional characteristics and potential services. This will benefit the development of future programs in the interest of the profession and the public.

It is of interest that almost concurrent with the publication of pharmacy manpower data, the *American Druggist* (2) has published its annual prescription survey data indicating that for the calendar year 1962 the pharmacists of the United States dispensed 702,016,000 prescriptions of medical practitioners to the 54,621,000 families of the United States. This number includes refilled prescriptions, but it does not include an estimated 200 million prescriptions dispensed in hospitals. The total number of prescriptions dispensed in 1962 represents an increase of nearly 8 percent over the number dispensed in 1961.

While the prescription compounding and dispensing services provided by pharmacists do not represent their total professional activity, they do constitute the most important phase of the professional function discharged by the general practitioner of pharmacy.

Using round numbers of 100,000 available pharmacists practicing in 54,000 noninstitutional pharmacies on 300 days of the year, the average number of prescriptions per pharmacy in 1962 was an estimated 13,000, or a few more than 40 per day, and the average number of prescriptions per pharmacist was a few less than 7,000, or about 20 per day. Knowledgeable persons in the profession know that the number of prescriptions dispensed may vary from 0 to 500 or more per day, depending on the location and character of the pharmacy, but to the public it is most important that a pharmacy be close at hand to dispense the few prescriptions the average family needs when it needs them.

According to the *American Druggist*, the dol-

Dr. Fischelis is president of the American Council on Pharmaceutical Education and is a past president and former secretary and general manager of the American Pharmaceutical Association.

lar volume paid by the public for the 702 million prescriptions was \$2,255,725,000, or \$3.21 per prescription, as compared with \$3.22 in 1961. The medical practitioners of the United States who wrote the prescriptions averaged 2,115 new prescriptions per prescriber. It is estimated that 21,060,480 of the prescriptions written required compounding by the pharmacist. The rest were dispensed in prefabricated dosage forms.

This is a rough picture of the available professional manpower to furnish the top professional function which pharmacy supplies as its contribution to medical care of the people of the United States.

The average family required 12.9 prescriptions in 1962. With 1 pharmacy per 1,000 families, it is not difficult to understand that these establishments must rely on additional sources of income to augment their revenue from prescription practice in order to serve acceptably in their professional capacity.

In general, the public does not seek out the specialist in prescription practice. Convenience and prompt service, if, as, and when needed, have been shown repeatedly to be the motivating influence in choosing the pharmacy when prescriptions or emergency medical supplies are required.

The general public has learned a great deal about the practice of medicine and the related healing arts in the past decade, and it is continually learning more through publicity emanating from Congressional investigations and hearings on proposed legislation. The popular magazines, daily press, radio, and television are supplying endless reports, news stories, fiction, and dramatizations on medical and related subjects. Therefore, the medical and allied health professions have been taking a closer look at themselves to make sure that their public image and that of their services are favorable and, what seems more important, to determine how nearly they are approaching the ideals which have been set for them.

It is pertinent to ask when pharmacists made their most recent effort to have their services and themselves evaluated. Leaders in the profession were able to interest the American Council on Education in the projection of a survey which was financed by the American Founda-

tion for Pharmaceutical Education and conducted through the years 1946-49 with the cooperation of the entire profession and the drug industry. The general report of that survey, conducted under the able direction of the late Dr. Edward C. Elliott, former president of Purdue University, was published in 1950 (3), but various segments of the report had been made available to national pharmaceutical organizations in advance of this date.

Major problems of the profession recognized in that survey were the supply of, and demand for, trained pharmacists and the need for professional manpower records.

At the completion of the survey in 1949, the director stated, "At the present time, there is no complete, reliable, usable census of the professional manpower of pharmacy. We do not know, with any accuracy, how many pharmacists there are or the number engaged in various classifications of pharmaceutical service, such as retail pharmacies, hospital pharmacies, manufacturing, sales, research, teaching, government service, and so forth. There is no plan for preserving a balance of the supply of and the need for trained personnel. This has resulted in widely divergent opinions as to deficits and surpluses of such personnel" (3).

"Until there is known," the director of the survey stated to the National Association of Boards of Pharmacy at its annual convention in Milwaukee, Wis., on August 25, 1947, "year by year, State by State, and for the entire country, the number of licensed pharmacists engaged in the various forms of pharmaceutical service, on full and on part time, their age distribution, professional preparation, experience, and compensation, and the number and classification of students in training, it is not possible to secure the proper economical balance of the supply and demand for trained, competent pharmacists.

"The immediate problem is that of the ways and means whereby the manpower books of pharmacy will be kept in order and in balance. Otherwise, pharmacy will be obliged to proceed, as it has in the past, upon the unjustified assumption that there always exists a pool of available, competent manpower from which varying needs of the profession may be met. A sound manpower plan will be developed only

as a sound statistical base is designed and constructed. . . . Briefly stated, the manpower problem is the problem of putting the whole of the house of pharmacy in such condition as would be livable, economically and professionally, for pharmacists prouder of their profession" (4).

At the conclusion of the manpower study, which was a part of the pharmaceutical survey, a series of recommendations was projected which included the following (5) :

1. That there be set up, under the auspices of the American Pharmaceutical Association, an agency to be known as the Commission on Professional Manpower for Pharmacy. This commission would be composed of one representative of each organization holding membership in the National Drug Trade Conference and such other representatives as the commission may desire.

2. That the initiative for the organization of this commission be assumed by the secretary of the American Pharmaceutical Association, who will serve as temporary chairman, and that the secretary of the National Association of Boards of Pharmacy act as temporary secretary of the commission.

3. That the chief functions of the commission will be to promote the development and maintenance of basic records of the pharmaceutical profession by the several State and national pharmaceutical agencies and by the colleges and schools of pharmacy, and to assemble, coordinate, and publish each year the essential facts relative to the supply of and needs for pharmacists for retail pharmacies, hospitals, manufacturing and research establishments, teaching institutions, the Department of Defense, State and national governments, and other fields of service.

4. To facilitate the operations of the commission, that each State board of pharmacy, in active cooperation with the State pharmaceutical association and the college or colleges of pharmacy of the State, undertake to maintain such records as will enable the State board of pharmacy to serve as a center for professional manpower information for the State. These records will include appropriate personnel and service data for all registered pharmacists of the State, a listing of pharmacists seeking positions, and all positions for which pharmacists

are needed. In this connection, the State board of pharmacy would develop proper working relations with the publicly established employment agencies.

5. That each college or school of pharmacy maintain more effective relations with its alumni for the purpose of securing and utilizing that information relative to the educational and economic factors affecting the present and future personnel for pharmacy.

6. That the American Pharmaceutical Association be requested to prepare and to publish, biennially or triennially, a complete roster of all pharmacists of the country, together with pertinent professional data for each individual.

7. That the American Pharmaceutical Association take steps to secure the cooperation of the U.S. Bureau of the Census for the utilization of such employment definitions and classifications as will result in more accurate and complete census data for legally licensed pharmacists.

One of the principal problems revealed by the survey findings was the determination of an annual replacement factor intended to give guidance on admissions to colleges of pharmacy so that there would be a sufficient number of graduates to take the place of those who must retire for one reason or another, those who die or become incapacitated, and those who migrate to other professions. A factor of 3.1 was suggested in place of the previously accepted factor of 2.6, but it was recognized that insufficient actuarial data were available to give validity to this or any other factor.

Implementation of these recommendations was undertaken shortly after they were made public. The secretary of the American Pharmaceutical Association in an editorial in the October 1948 issue of its journal commented on the recommendations as follows (6).

Pharmacy's manpower records have been found inadequate by the survey and a commission is recommended to study and provide for continuous data, with publication of a directory of pharmacists at biennial intervals. The American Pharmaceutical Association has been laying the groundwork for such a project. It will never be accomplished by wishful thinking or paper planning. It is a sensible project which will benefit the entire profession and drug industry. The American Pharmaceutical Association and the National Association of Boards of Pharmacy, working

together, can give it direction and make essential records available, but such a project is also expensive and will require some form of government or private subsidy, or both. All of this is implicit in the survey findings and recommendations, but it can be found also in the reports and their implications submitted from year to year at the annual conventions of the American Pharmaceutical Association since 1852.

At a subsequent annual meeting of the National Drug Trade Conference, with delegates of 10 national pharmaceutical organizations attending, recommendations 1 and 2 were implemented by calling a meeting of representatives of the organizations holding membership in the National Drug Trade Conference. The secretary of the American Pharmaceutical Association functioned as temporary chairman and the secretary of the National Association of Boards of Pharmacy as secretary of the meeting. The chapter of the survey dealing with the supply and demand for trained pharmacists and professional manpower records was reviewed, and the officers were empowered to proceed to implement the findings of the survey with regard to pharmaceutical manpower.

At the next annual meeting of the National Drug Trade Conference, it was reported that the majority of the State boards of pharmacy would cooperate in providing lists of registrants. Further, Federal agencies dealing with professional manpower problems had been contacted, and there were some prospects of securing financial aid in compiling and keeping current a list of pharmacists for emergency use in connection with civil defense and possibly other services. It was also pointed out that members of the drug industry had been contacted by letter, setting forth the advantages of an available list of registered pharmacists, from the standpoint of possible sources of both employees and customers.

Relatively little enthusiasm was manifested by the members of the drug industry. The larger organizations, which could afford to make a substantial financial contribution to the development of a list of registered pharmacists, pointed out that they maintained, at considerable expense, their own lists of retail pharmacies, hospital pharmacies, and pharmacists operating such establishments. They compiled these lists for their own use and kept them up to date through personal contacts by sales and

detail forces who visited the retail and hospital establishments throughout the country. These houses also pointed out that they maintained their own lists in a manner to serve their particular purposes, and they could see no particular advantage in the development of a general list. The smaller organizations were content to rely on mailing lists of pharmacies, as supplied by commercial sources.

Separate communications had also been sent to colleges of pharmacy requesting lists of graduates after each graduation ceremony.

Some effort had been expended in determining how best to keep up the accuracy of the listing of registrants and the additions by way of lists of college graduates.

The goal which had been held out for achievement was similar to the goal which the American Medical and the American Dental Associations have achieved over the years; to have the name of each physician and dentist—licensed or not licensed—recorded in the central offices of these respective organizations. The eventual publication of a directory of pharmacists, like the A.M.A. Directory, was, of course, an ultimate objective.

It is well known that the National Association of Boards of Pharmacy began conducting an annual census of pharmacists more than 20 years ago by collecting data on the number of registered pharmacists in good standing each year. This information has been published in the Proceedings of the National Association of Boards of Pharmacy annually, and the census has been broadened from year to year as the secretary of NABP has requested additional information from the member State boards of pharmacy. This effort, which constituted the only authentic source of pharmacy manpower information to date, has been handicapped to some extent by the inability of individual State boards of pharmacy to collect necessary data, principally because of lack of funds and personnel with which to carry on the necessary State surveys. The NABP is a voluntary organization of State boards of pharmacy whose chief purpose is to provide for interstate reciprocity in pharmaceutical licensure, based upon a uniform minimum standard of professional education. It has no regulatory authority over the boards of pharmacy and cannot compel its

members to supply information or to demand information from their respective registrants which is not required by the respective State pharmacy laws. It is all the more remarkable that NABP has been able to persuade its members to supply so much essential information annually as has been included in its annual census reports.

Data received and tabulated annually by NABP include total number of applicants examined for licensure; number passing and failing; number licensed by examination and by reciprocity; number of licenses suspended, revoked, and reinstated; number renewing registration; deaths; number unemployed, retired, or engaged in other pursuits; number residing in or out of State; extent of education; number engaged in retail, hospital, wholesale, manufacturing, teaching, and other vocations; sex and age categories; pharmacy owners or employees; total retail and hospital pharmacies; number of licensed drug outlets other than pharmacies; number of pharmacists per pharmacy; and number of prescriptions dispensed.

The National Association of Boards of Pharmacy has promoted uniformity in State legislation. Only in recent years have all the State pharmacy laws required annual, biennial, or triennial renewal of pharmacy licenses, so that the number of pharmacists in good standing in each State can be obtained with fair accuracy.

The American Council on Pharmaceutical Education is currently giving thought to the possibility of requesting another survey of the profession and its activities in order to learn whether changes in pharmacal practice and pharmaceutical services require further consideration of possible changes in teaching curriculums and training procedures. A study of the manpower and other data in the Health Manpower Source Book on pharmacists seems to indicate the need for such a survey after a lapse of more than 12 years.

Many of the data derived from the sample survey of 1962 by the Public Health Service are based on a census sample which may not be thoroughly representative of all phases of professional practice encountered in the 50 States, since 15 percent of those receiving the questionnaire did not reply. Both the sample and the questionnaire from which many of the data have

been gathered and projected present certain limitations which can be corrected now that a relatively complete and current roster of pharmacists has been established.

Although the terminology and definitions used by the Public Health Service were supplied by selected members of the pharmacal profession, some changes are indicated in order to make some of the findings more meaningful. Added information of value could be obtained by revision of the questionnaire if and when it is issued to all pharmacists of record. It is a well-known fact that there is at present no complete consensus within the profession regarding terminology in certain areas, scientific as well as professional.

Application of the term "community pharmacy" to both independent and chain drugstores in the Health Manpower Source Book will strike many pharmacists as strange. In the profession, the concept of a chain drugstore is that of a unit of a corporation operating in a transient area with greatest emphasis on its merchandising activities. This is not to question the quality of such professional services as are provided, for such organizations are usually extremely careful to observe all laws and regulations. However, the extent of the merchandising operation tends to generate an impersonal relationship between buyer and vendor.

"Community pharmacy" connotes a more personal relationship between the pharmacist and clientele as well as a greater interest in the professional service to be provided by the pharmacist. The pharmacal profession thinks of the community pharmacy as a place where the general practitioner occupies a relationship with people comparable to that of the family doctor with his patient and, in general, this is also the layman's reaction.

Plans for continuing education of pharmacists can now be formulated with greater assurance that those who need it most can be reached. This is a result of the establishment of age and graduation date categories which can be correlated with dates of introduction of new classes of drugs and obsolescence factors concerning others. The employment of pharmacists whose educational background has prepared them to supply an essential consultation function with respect to modern prescription

drugs will also be facilitated when the more detailed manpower information becomes generally available.

In considering terminology applied to pharmacists, some State pharmaceutical associations have suggested designating all registered or licensed pharmacists as "R.P." or "R.Ph." in the manner followed by nurses (R.N.). This does not, however, include unregistered pharmacy college graduates whose degrees are not uniform. The "B.Sc. in Pharmacy" is a cumbersome designation. American physicians all have the M.D. or D.O. degree and this is the designation generally applied to them as a class rather than "registered physician" or "licensed physician." When a soldier is employed in a pharmacy in one of the military services or a layman as a helper in a hospital pharmacy or drugstore, he may, without legal authority, call himself a pharmacist and a nonpharmacist owner may be referred to as a pharmacist. This is all very confusing in the assembling of manpower data. The same difficulty is encountered in designating the establishment where pharmacy is practiced. Drugstore, retail drugstore, pharmacy, retail pharmacy, apothecary, apothecary shop, and professional pharmacy are all designations which have been applied to pharmacies. State pharmacy laws license or register establishments where prescriptions are compounded and drugs are sold at retail under the supervision of a registered pharmacist as a "pharmacy."

The salary data assembled by the Health Manpower Source Book will serve as a basis for establishing professional fees, and this is of particular importance to State welfare agencies and others endeavoring to provide fair remuneration for the pharmaceutical services in medical care programs. The establishment of fair working hour schedules and remuneration based on extent of professional services provided has been facilitated by the assembly of data in this area, but more complete information and study of the procedure for gathering these data are indicated.

The Public Health Service has rendered a distinct and invaluable service in the development of this manpower study. It will not only aid the pharmacal profession in its endeavor to prepare a directory of pharmacists with im-

portant basic information regarding individual members of the profession, but it will also be of help to all segments of the profession and drug industry in studying the characteristics, employment status, and related factors regarding the profession. This, in turn, will provide a sounder basis for indicating trends, desires, and service possibilities. Study of the Health Manpower Source Book will also lead to the development of further information helpful in expanding professional practice, professional services, and contacts with purveyors and recipients of pharmaceutical services.

Having started the profession on its way to the improvement of its current statistical sources and accumulation of data which it should have prepared for publication years ago and kept current, the Public Health Service has indicated that it is incumbent upon the profession, acting in unity, to continue to collect and supply information on its individual practitioners which will help to build a body of information about the profession as a whole that will be of incalculable value to all concerned.

Obviously, the facts and figures concerning individual pharmacists can be kept current only through the cooperation of the members of the profession and those who are engaged in industrial pursuits growing out of the development of drugs and medicines for better medical care. Periodic editions of a pharmacal directory or manpower source book will serve to keep the facts about the profession before its own members, related professions, and others who may be interested.

REFERENCES

- (1) Peterson, P. Q., and Pennell, M. Y.: Health manpower source book 15. Pharmacists. PHS Publication No. 263; sec. 15. U.S. Government Printing Office, Washington, D.C., 1963.
- (2) Prescription statistics. *American Druggist* 147: 5-8, Apr. 1, 1963.
- (3) The general report of the pharmaceutical survey 1946-49. American Council on Education, Washington, D.C., 1950.
- (4) Elliott, E. C.: Address. Proceedings of the National Association of Boards of Pharmacy. Chicago, Ill., 1947.
- (5) Findings and recommendations of the pharmaceutical survey, 1948. American Council on Education, Washington, D.C., 1948.
- (6) Fischelis, R. P.: Manpower records [Editorial]. *J. Am. Pharm. A.* 9: 595, October 1948.